

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A wide area load sharing control system comprising:

~~a module~~ means for determining a distribution ratio at which an input traffic to ~~an~~ ingress edge ~~node~~ nodes is distributed to each of a plurality of paths set up between said ingress edge ~~node~~ nodes and ~~an~~ egress edge ~~node~~ nodes that correspond to a traffic engineering section a network; and

~~a module~~ means for indicating ~~which unit~~, whether a sharing control unit corresponding to each of said ingress edge ~~node~~ nodes or ~~either~~ a concentration control unit, that executes a process of determining the distribution ratio at which the input traffic to said ingress edge ~~node~~ nodes is distributed to each of the plurality of paths.

2. (Currently Amended) A wide area load sharing control system according to claim 1, wherein said indicating ~~module~~ means indicates ~~which unit~~, said sharing control unit or said concentration control unit, that takes charge of the determining process in accordance with load states of said sharing control unit and of said concentration control unit.

3. (Currently Amended) A wide area load sharing control system according to claim 1, wherein said concentration control unit is a network control device concentratedly controlling a plurality of nodes including said ingress edge ~~node~~ nodes and said egress edge ~~node~~ nodes existing in the traffic engineering section of the network.

4. (Currently Amended) A wide area load sharing control system according to claim 3, wherein said indicating ~~module~~ means is provided in a state monitoring device outside said network control device.

5. (Original) A wide area load sharing control system according to claim 1, wherein the network is an MPLS-based label switching network.

6. (Currently Amended) A wide area load sharing control system according to claim 1, wherein when said sharing control unit corresponding to each of said ingress edge ~~node~~ nodes gathers statistic information showing a load state in the network, said sharing control unit gathers directly the statistic information from said nodes capable of using a notification message based on a specified protocol, and gathers, through said concentration control unit, the statistic information from said nodes incapable of using the notification message based on the specified protocol.

7. (Currently Amended) A wide area load sharing control system comprising:

~~a~~-statistic information gathering ~~module~~ means for obtaining from respective nodes, as statistic information, a traffic state of links connected to said respective nodes in a network;

~~a~~-route determining ~~module~~ means determining, based on the obtained statistic information, at least one route for extending a plurality of paths between ~~an~~-ingress edge ~~node~~ nodes and ~~an~~-egress edge ~~node~~ nodes that correspond to a traffic engineering section in the network; and

a load sharing determining ~~module~~ means for determining, based on the obtained statistic information, a distribution ratio at which a traffic should be distributed to respective paths on the determined route,

wherein ~~active modules among~~ said statistic information gathering ~~module~~ means for, said route determining ~~module~~ means and said load sharing determining ~~module~~ means are switched over to between said ingress edge ~~node~~ nodes and ~~said~~ a network control device concentratedly controlling said respective nodes, mutually.

8. (Currently Amended) A wide area load sharing control system according to claim 7, wherein said ingress edge node includes ~~an~~-allocating ~~module~~ means for allocating packets arrived at, to the paths on said route on the basis of the distribution ratio, indicated by said load sharing determining ~~module~~ means, at which the traffic should be distributed to the paths on the route.

9. (Currently Amended) A wide area load sharing control system according to claim 7, further comprising a state monitoring device including:

~~a~~ ~~module~~ means for gathering and judging load states of said ingress edge ~~node~~ nodes and said network control device; and

~~an~~ indicating ~~module~~ means for switching over ~~active modules among~~ said statistic information gathering ~~module~~ means, said route determining ~~module~~ means and said load sharing determining ~~module~~ means to between said ingress edge ~~node~~ nodes and said network control device in accordance with the load states, mutually.

10. (Currently Amended) A wide area load sharing control system according to claim 7, wherein when said ingress edge ~~node gathers~~ nodes gather the statistic information showing a load state in the network, said ingress edge ~~node gathers~~ nodes gather directly the statistic information from said nodes capable of using a notification message based on a specified protocol, and gather, through said network control device, the statistic information from said nodes incapable of using the notification message based on the specified protocol.

11. (Currently Amended) A wide area load sharing control system according to claim 7, wherein if said ingress edge node does not include said load sharing determining ~~module~~ means, said load sharing determining ~~module~~ means of said network control device is made to operate.

12. (Original) A wide area load sharing control system according to claim 7, wherein the network is an MPLS-based label switching network.

13. (Currently Amended) A wide area load sharing control method comprising:

determining a distribution ratio at which an input traffic to ~~an~~ ingress edge ~~node~~ nodes is distributed to each of a plurality of paths set up between said ingress edge ~~node~~ nodes and ~~an~~ egress edge ~~node~~ nodes that correspond to a traffic engineering section in a network; and

indicating ~~which unit,~~ whether a sharing control unit corresponding to each of said ingress edge ~~node~~ nodes or ~~other~~ a concentration control unit, that executes a process of determining the distribution ratio at which the input traffic to said ingress edge ~~node~~ nodes is distributed to each of the plurality of paths.

14. (Currently Amended) A wide area load sharing control method comprising:

obtaining from respective nodes, as statistic information, a traffic state of links connected to said respective nodes in a network;

determining, based on the obtained statistic information, at least one route for extending a plurality of paths between ~~an~~ ingress edge ~~node~~ nodes and ~~an~~ egress edge ~~node~~ nodes that correspond to a traffic engineering section in the network;

determining, based on the obtained statistic information, a distribution ratio at which a traffic should be distributed to respective paths on the determined route; and

switching over processing ~~modules~~ means of said ~~respective~~ obtaining step and said determining steps to between said ingress edge ~~node~~ nodes and a control device concentratedly controlling said respective nodes, mutually.

15. (Currently Amended) A wide area load sharing control method according to claim 14, further comprising:

gathering and judging load states of said ingress edge ~~node~~ nodes and said control device; and

giving an indication of switching over the processing ~~modules~~ means to between said ingress edge ~~node~~ nodes and said control device mutually in accordance with the load states.